DOCUMENT RESUME

ED 268 317 CE 044 175

AUTHOR Stohrer, Freda F.
TITLE Reassessing Education's Role within the Global Village: Where in the World Are We?
PUB DATE Mar 86
NOTE 10p.; Paper presented at the Annual Meeting of the Conference on College Composition and Communication (37th, New Orleans, LA, March 13-15, 1986).
PUB TYPE Viewpoints (120) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Communication Skills; *Corporate Education; *Educational Needs; Industrial Training; Job Training; *Labor Needs; Retraining; Skill Development; *Technical Writing; Technological Advancement

ABSTRACT

The rapid technological advancement that U.S. society is experiencing has increased the likelihood that workers will have to be trained and retrained throughout their working lives to meet continually changing job requirements. This situation has challenged instructors of technical communication who are faced with the overlap of traditional education and corporate education in the area of basic skills. Although it is not fair to insist that the schools take the responsibility for dealing with all the educational needs of the business-industry-government complex, instructors of college technical communications courses must reassess their programs in light of what industry and society really need and want. After examining some 10 surveys of the rhetorical needs of writers in all types of jobs, one researcher has concluded that rather than emphasizing such specific writing assignments as composing proposals or taking minutes of meetings, the basic technical writing course should focus on (1) those common rhetorical principles that underlie the design and development of all writing; (2) ways of adapting any communication to varying audiences; and (3) assignments that emphasize an integrated approach to communication, including team reports. (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

REASSESSING EDUCATION'S ROLE WITHIN THE GLOBAL VILLAGE: WHERE IN THE WORLD ARE WE?

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

F Stohrer

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Freda F. Stohrer
Department of Communication and Research Methods
Air Force Institute of Technology
Wright-Patterson Air Force Base
Dayton, Ohio

ED268317

In 1985, IBM ran a four-page advertisement showing the progress of an employee from his entry-level position in 1964 as typewriter assembler to his position twenty years and four career changes later as a member of the IBM electronic card assembly technical staff. The ad concludes with a powerful statement of corporate America's need for employees who can adapt to changing technologies: "jobs may come and go. But people shouldn't." Secretary of Labor John Brock has summarized an equally important reality for the work place: "We are building a huge glob of permanently unemployed that's going to bubble up through the demographic charts for the next thirty years--people who lack the education and skill to hold any job. They number in the high hundreds of thousands at the moment, but it will be in the low millions in the near term. This is an absolute insanity for them, and for us." (1)

My paper deals with this contradiction as it concerns technical communication--the need to educate America's work force so that it can first be hired and thereafter be trained and retrained to meet the needs of an increasingly complex technological society. The challenge to instructors of technical communication comes when traditional education and corporate education overlap in the area of basic skills.

A December 1984 report by the Carnegie Foundation for the Advancement of Teaching, Corporate Classrooms: The Learning Business, pointed out that American business spends in excess of $40 billion annually to train, retrain, and educate its employees. Other estimates go as high as $100 billion, but limits are hard to set, the report states, because companies rarely include the costs for the time and wages of employee-students in their figures. (2) These numbers mean that the corporate educational establishment now about equals higher education in expenditures.

By its size alone, this enterprise challenges the delivery of education as America is accustomed to receiving it. The purpose, the method, even the content are affected. Those of us in the traditional classroom may not recognize the importance of the corporate system vis-a-vis American education because we don't really know what goes on there. To put this giant into context, let me highlight a few important events in the history of industrial/business/corporate education in the United States and profile the present state of that establishment.

History of Corporate Education in America

There have been classrooms for American workers outside the traditional classroom since the beginning of the Industrial Revolution. By 1815 we had the steamboat, the spinning mill, the cotton gin, a machine for making other

CE044175

machines, and more. Mills using 500,000 spindles were employing 76,000 workers (CC, p. 25). But America was not a nation of industrial workers; we were a nation of farmers and artisans. Already a shortage of educated/trained workers existed. American industrialists had to find ways to train workers to operate the new machines.

The Carnegie report points out that

> Industrialization meant two changes in work preparation. Specific training was now required before specific tasks could be performed. In the traditional craft and agrarian order, people had 'grown-up' into stable life-long occupations. The other change required a different orientation: Work activity was now focused away from the individual, family, or small group and toward a large, impersonal organization within a large, impersonal urban community. The Industrial Revolution required education for specific tasks and education to function within the emerging corporate organization (CC p.26).

Once the Industrial Revolution had begun, then, new demands for education were made on the school and on the factory. However, no educational system, academic or industrial, existed at that time to address those demands. On the one hand, the U.S. public school system was decades away. In 1800, most traditional colleges taught the classical curriculum to the upper classes. Elementary schools emphasized literacy; secondary schools, in general, prepared students for the university. The European apprenticeship system, on the other hand, was too cumbersome to serve the needs of the new factories and was opposed by American workers.

Furthermore, the country was underpopulated; men for factory jobs were in short supply. But the problem demanded a solution, and these early industrialists, who shared with their workers an American vision of the factory as an opportunity, a way up the ladder of life (CC, p. 26), wanted to avoid the depressing conditions found in English factory towns. Thus, they looked for creative solutions, which usually depended partly on factory-provided education, to the labor shortage.

The "family scheme" brought whole families from the countryside into organized factory communities which provided jobs for men, women, and children. The Pomfret Manufacturing Company bought 1000 acres of land on which it built the cotton mill, a school, a church, and employee housing The Lowell (Massachusetts) mills, which employed young women from New England farms primarily (900 females; 400 males in 1833), created "an entire set of living circumstances designed to nurture and educate"(CC, p. 27). Foster Rhea Dulles in Labor in America points out that "The idea behind Lowell was virtually that of a female boarding school, except that the young women worked in the mills rather than at their studies." (3) Circulating libraries were available, church attendance was required, and mill executives taught in the Sabbath school.

These methods created no utopias, but the idea that the work place should provide training and education became a part of the American industrial landscape.

Changing and expanding technologies continued to create more new jobs; thus, the labor shortage remained constant, and employers kept trying to train the inexperienced immigrants, farmers, and artisans for the new jobs. Of course, at the same time, educators, politicians, and industrialists, were working to build a public school system which would prepare people for productive citizenship. In 1928 Everett Dean Martin wrote "It is not so much as a guarantor of liberty as [it is] an agency of progress - prosperity - that democracy and industry support the school" (CC, p. 45).

Among the laws passed was the the Morrill Land Grant Act of 1862 in which Congress gave universities the means to provide an education in engineering, agriculture, and military science. This law brought the traditional arts curriculum under the same roof with the sciences for the first time in western history. Schools also tried to innovate. In 1876, President John D. Runkle of the Massachusetts Institute of Technology, started "a new School of Mechanical Arts to offer manual education for industrial careers . . ." (CC, p.32).

These several efforts, and the others like them, were still too little too late. By the time the schools had developed the means for addressing one innovation, the needs of industry and society had moved to a new plateau. Industry, never willing to wait for the schools to catch up, is still trying to develop a skilled work force. But right now we all seem to be falling behind.

The Present State of Corporate Education in the U.S.

Extent and Variety

Today some 21,000,000 adults participate in employer supported educational activities in the United States. Some 400 business sites have buildings for "training" or "education." There are also 18 degree-granting institutions within the corporate world. Federal and state governments, not represented in the Carnegie report, run various wide-ranging training activities, including two graduate schools, the Air Force Institute of Technology and the Naval Postgraduate School.

Courses taught by business typically fall into four general areas: basic skills, management and executive training, technical and scientific study, and sales, service, and customer training. The courses in basic skills concern us here; courses in the other areas can often be justified as industry unique--courses that include specialized knowledge pertinent to a particular company or that shape general information into specific forms.

Overlap in Basic Education

The courses in basic education, moreover, often overlap with our courses in technical writing. The following table listing basic skills courses taught at
representative companies suggests the extent of the overlap. Asterisks denote communication courses.

BASIC EDUCATION COURSES TAUGHT AT EIGHT COMPANIES

Manufacturers Hanover

Effective Communications - Listening
Basic Arithmetic
*Basic Speech - Grammar, Spelling, Punctuation
*English as a Second Language I, II, III
Shorthand - Dictation and Dictaphone
Typing including Statistical Typing
*Basic Writing Skills - Letter, Memo, Reports especially for technical professional personnel

Polaroid

High School Chemistry and Physics
Algebra and Trigonometry
Metric System
*Literacy Training Tutorials
Reading Labs

NCR

* Basic English Grammar
*Effective Business Writing
*Effective Technical Writing

IBM: Software Engineering Institute

Self-study courses in Algebra, Math Preparation and Review and *Logical Expression

American Institute of Banking--New York City

Reading and Study Skills Development
*Reading and Writing English Skills for the Foreign Educated
*Speech

Chrysler Corporation

Reading Skills
*Introduction to Writing
*Writing Skills
Speech Skills
Accelerated Reading

Consolidated Edison

Effective Reading
Effective Listening

Standard Oil of California

*Better Letter Writing
*Put it in Writing
*Technical Writing
*Practical English and the Command of Words
*Effective Communicating

(CC, pp. 61-63)

Of course, and I emphasize this qualification, it is not fair to insist that the schools take the responsibility for dealing with all the educational needs of the business-industry-government complex. The agenda of the schools and those of business and industry are not and should not be the same. The educational system must work within a larger context and with broader implications.

Our need for review, however, is highlighted by a 1983 study done by the Center for Public Resources, "Basic Skills in the U.S. Work Force." This study suggests that school administrators (on the secondary level) and business executives no longer agree about what constitutes adequacy, nor indeed, about what constitutes basic skills. The Center surveyed companies, labor unions, and school systems about the adequacy of recent school graduates in basic academic skills. In addition to the 3 R's, the Center listed as essential sciences at the high school level, skills of speaking, listening, and reasoning or critical thinking. "To ask a question clearly and coherently, to follow instructions, to draw a reasonable conclusion from information given" were all considered basic abilities (CC, p. 60).

Executives were seriously concerned about graduates' low level skills; school administrators believed the same graduates were adequately prepared. Business respondees insisted that insufficient skills impaired more than the employee's ability to get a job: they impacted his ability to be retrained or promoted to higher levels within the company.

Of some interest to us in technical writing (in addition to poor training in the 3 R's and critical thinking) was the employer's emphasis on basic science and mathematics. School officials generally did not perceive mathematics and sciences as essential in preparing graduates for future employment. Such omission must hamper employees' ability to deal with communications in these areas. Poor training in the three R's gives us employees who can't read instructions, who can't analyze packages of information, can't type letters or reports, and who will accept as "good," because that's all they know, the kind of bureaucratic prose we confront every day on the job. Malcolm Baldridge finally programmed his word processors to reject words like "utilize." These deficiencies cost business millions.

Everyone agrees that corporations did not move into basic skills education for altruistic reasons. Their business is still the production of goods and services. One illustration of the irritation shown by businessmen who find themselves required to redo the school's work for their employees is a comparison done at General Electric which compared an advanced course taught by the company with a standard course taught at the university. Here is their summary of results.

DIFFERENCES BETWEEN GENERAL ELECTRIC COURSE
AND COLLEGE COURSE

College Course	Advanced Course
1. Teacher-Student Relationship	1. Supervisor-Engineer
2. Teacher knows all	2. Supervisor knows problem
3. Learn for education's sake	3. Learn to get an answer
4. Work exercises to learn principles	4. Solve problems to get get results
5. Show what you know	5. Show what the customer needs
6. Include scratchwork	6. Edit for clear reading
7. Skip arithmetic if pressed	7. Numerical result needed
8. Understanding most important	8. Results are important
9. Cooperation forbidden	9. Cooperation encouraged
10. Student behavior	10. Professional behavior

(From a comparison done at General Electric in its 1979 course description; reprinted in CC, p. 78).

The changes in industry which have mandated the present corporate educational system do not have the immediacy for departments of English that they have for schools of business and engineering, unless it is in the technical writing classroom. Articles in our technical writing journals frequently show that we are trying to look at business' needs, however fragmented our efforts. Those articles, however, often deal with solutions to the discreet problems of specialized organizations rather than with fundamental questions content or accountability.

We must ask the basic questions accountability requires. Have we considered, for example, the skills students should bring with them to the technical writing class or what skills they should take away? We teach job-specific assignments to make our students more immediately employable. Have we evaluated those assignments against any objective criteria? Have we considered long-range as well as short-range goals? We should probably compare carefully the goals of our professional writing courses with those of the basic writing courses. The overlap between corporate courses in writing and the university curriculum suggests to me that if we are worrying about such things as how to write an engineering proposal for Company X, we may be worrying about the wrong things. (See, for example, "A Training Checklist for Engineering Proposals" in the Winter 1986 issue of the Technical Writing Teacher. (5)) It may be that we should teach the student logic, persuasion, organization, and let industry teach the special applications of those skills. If secondary school faculty must first prepare their students to enter either the job market or college and instructors of freshman English must prepare students to do the writing required during their college careers, should professional writing instructors first prepare students to use standard communication skills common to professional life?

Our assessment must start--with as few preconceptions as possible-- with the role of the college in contemporary society. Does it do -- or should it do -- what it has traditionally done? In 1950, 434,000 bachelors degrees were awarded; in 1982, 1,025,000: an increase of 236%. At the same time, the population had increased 153%. In 1950 32% of Americans had completed high school or college; in 1982, 73%. The numbers alone tell us that we are educating a different segment of the population, not just the brightest and the wealthiest, but the average student as well. Should we look at grade inflation from that perspective?

But we also need to know what industry and society really need, and business doesn't seem to have any better answers to these primary questions than we do. Business, then, must reassess its needs and make them known to the university. In the ensuing dialogue, we can decide what we ought to do. The consequences for traditional education of not reassessing its role in society will mean a passive role in the changes which are already taking place. Or we might watch our importance to the world at large gradually diminish. We see the changes taking place in the written language in the technical world; how much difference do our lectures on the plain style seem to make there? With all our time and talk, why can't we make a difference?

Some movement toward this reassessment has begun, but the work so far seems to belong to single scholars, working alone. Elizabeth Tebeaux argues that teaching discreet courses in business writing, technical writing science writing, and other kinds of professional writing is outmoded. (5) Emphasizing such specific assignments as instructions, proposals, or feasibility studies for engineering students and memoranda, minutes of meetings, and performance evaluations for business students suggests that the engineer will never need to write a performance evaluation and the business major will never do a feasibility study. From some ten surveys of the rhetorical needs of writers in all types of jobs, Tebeaux concludes that the focus of the basic technical writing course should be those common rhetorical principles that underlie the design and development of all writing, the adaptation of any communication to varying audiences, and the use of assignments which emphasize an integrated approach to communication-- team reports, for example. (6)

In "What's Different About Teaching Technical Writing," R. John Brockman compares technical writing courses to literature and general composition courses with an eye to sorting out what real differences do exist. (7) If we can distinguish the different purposes of our several courses, we may be able to assign more believable responsibilities to them.

Some Preliminary Considerations

The absolute need for communication skills in the technological workplace has made our profession increasingly important. Not only must modern workers read and write, they must be able to organize and use information presented to them in written form. The university's failure to address these problems is notorious in the software industry where documentation so often lacks coherence and usefulness. In another example, when entry-level clerks cannot read well enough to manage the stacks of forms which distribute travel dollars, retirement hours, or annual leave, they waste thousands of dollars.

Despite C.P. Snow's description a generation ago of two coexisting cultures, many of us in technical writing still fail to accept the fact of technical language. When we throw away the terminology and custom required by a given field and insist that the student use the "plain style" only, we do the student no favor. We haven't shown him how to use the tools he needs to earn his living. The person who cannot use the standard terminology of his profession easily falls victim to the bureaucratic style we everlastingly deplore.

Maxine Hairston in her Presidential Address to the 1985 CCCC notes that writing faculty in English departments spend a lot of time fighting the Mandarin Wars. The Mandarins, those who teach literature, hold the power in those departments and will not accept the aims and priorities of the teachers of composition who do try to correlate society's needs with departmental goals. She suggests, therefore, that writing faculties leave the English Department, psychologically if not physically, and look to their own real aspirations. (8) Does our allegiance to the traditional department delay our response unnecessarily?

Conclusions

Studies of this issue in American education see it either as an indictment of the educational establishment (the Carnegie report) or a challenge to greater accomplishments. Suzanne Morse sees the challenge. She argues that if both school and business take off their bureaucratic blinders and look at the problems for what they really are, both sides can win. As she says in Employee Educational Programs: Implications for Industry and Higher Education, "Despite the endless debate on who should be doing what to educate the American workforce, it is clear that enough work remains to be done to involve all the players." (9)

In answering the question "Where in the world are we?" I suggest that we stand somewhere on a bridge on a dark night. We are probably not as far from our friends teaching at the corporation nearby as we might think, but we haven't determined just where we are nor have they determined just where they are. The real need at the moment is not to look about and argue about just what we should do or just what they should do, but determine where we are. And the Carnegie Report suggests that before we start looking around for territory on the bridge, we'd better determine just who all is standing there.

Perhaps the greatest difference between the university and the corporate learning establishment is the emphasis given by the corporation to research into how people learn. More than once the report points out that "Higher education has done little to learn about teaching and learning. The university's instructional mode has scarcely changed over the past fifty years" (CC, p. 55). In response to this lack of change, the Carnegie report quotes F. Reif's "Educational Challenges for the University" which asks "Is it too farfetched to suggest that the university should take education at least as seriously as the Bell Telephone Company takes communication?" (10)

ENDNOTES

(1) Quoted in James Cook, "The knack. . . and how to get it," Forbes,

137, No. 6 (1986), 65.

(2) Nell P. Eurich. Corporate Classrooms: The Learning Business. (Princeton, NJ: Carnegie Foundation for the Advancement of Teaching, 1984), pp. 5-6. I am indebted to Nell Eurich for much of the historical information summarized in this paper. Future references to her book are included in the text as CC, p. .

(3) (New York: Crowell, 1955), p. 74.

(4) Elizabeth Tebeaux, "Redesigning Professional Writing Courses to Meet the Communication Needs of Writers in Business and Industry, College Composition and Communication, 36, No. 4 (1985), 419-428.

(5) Tim Whelan, "A Training Checklist for Engineering Proposals," Technical Writing Teacher, 13, No. 1 (1986), 18-22.

(6) Tebeaux, Ibid., pp. 423-424.

(7) R. John Brockman, What's Different about Teaching Technical Writing," Technical Writing Teacher, 10. No. 3 (1983), 174-181.

(8) "Breaking Our Bonds and Reaffirming Our Connections," College Composition and Communication, 36, No.3, (1985), pp. 272-282.

(9) ERIC, 1984, p. 63.

(10) Science, May 3, 1974, 537-542.